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EXAMINER

TRUONG, LAN DAI T

ART UNIT

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2452

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/995,547	Applicant(s) JALONEN ET AL.	
	Examiner LAN-DAI Thi TRUONG	Art Unit 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-16 and 18-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-16, 18-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09-12-08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is response to communications: application, filed on 11/28/2001; amendment filed 08/18/2008. Claims 1-10, 12-16 and 18-35 are pending; claims 11 and 17 are canceled; claims 1, 7, 12, 15, 18-19, 21, 24, 27-30 and 35 are amended.

Response to arguments

2. The applicant's arguments filed on 08/18/2008 have fully considered.
3. In response to newly added limitations to claims 1, 7, 12, 15, 18-19, 21, 24, 27-30 and 35, new rejections under new ground for rejection(s) are provided. See rejections below for details.
4. regarding applicant's arguments with respect to the previous 'Objection to the specification' are not persuasive, the previous 'Objection to the Specification' is retained.

Claim rejections-35 USC § 112, first paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-10, 15-16, 24-26 and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Regarding claim 7:

The claim(s) contains subject matter (e.g. wherein the removal is according to the fetched filter parameter) which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

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application was filed, had possession of the claimed invention. Nowhere in the specification discloses the use of removing a filter according to the fetched filter parameter. Without disclosures the use of removing a filter according to the fetched filter parameter from the specification, how one of ordinary skill in the art determine claim feature of “wherein the removal is according to the fetched filter parameter.” Appropriate correction is required.

Regarding claims 8-10:

Those claims are rejected under rationales of claim 7.

Regarding claim 15:

The claim(s) contains subject matter (e.g. removing the filter according to the retrieved filter parameter” which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Nowhere in the specification discloses the use of removing a filter according to the retrieved filter parameter. Without disclosures the use of removing a filter according to the retrieved filter parameter from the specification, how one of ordinary skill in the art determine claim feature of “removing the filter according to the retrieved filter parameter.” Appropriate correction is required.

Regarding claims 16 and 24-26:

Those claims are rejected under rationales of claims 15.

Regarding claim 29:

The claim(s) contains subject matters (e.g. the removal is according to a filter parameter retrieved from a service table in a receiving node/ and the addition is according to a filter parameter retrieved from a service table in a receiving node) those were not described in the

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specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Nowhere in the specification discloses the use of the removal/ or the addition is according to a filter parameter retrieved from a service table. Without disclosures the use of the removal/ or addition is according to a filter parameter retrieved from a service table from the specification, how one of ordinary skill in the art determine claim features of “the removal is according to a filter parameter retrieved from a service table in a receiving node” and “the addition is according to a filter parameter retrieved from a service table in a receiving node”. Appropriate corrections are required.

Claim rejections-35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6, 12-15 and 31 are rejected under 35 U.S.C 103(a) as being unpatentable over Boursier et al. (U.S. 2004/0151185) and in view of Kashima (U.S. 2002/0087999) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 1:

Boursier discloses the invention substantially as claimed, including a method, comprising:

examining a connection from a client machine: (packet identifier/ channel identifier is recognized: Boursier, abstract, lines 8-9; [0032]; [0034]; [0051]; [0052]).

retrieving a filter parameter for the connection: (filtering parameters is retrieved from a filtering table to implement filtering process for identified channel: Boursier, abstract, lines 8-11; [0033]; [0053]).

implementing a filter, for a multicast program, according to the retrieved filter parameter: (implementing filtering process on broadcasting data (i.e. digital television data, digital radio data or broadcast computer data) by applying filtering parameters those retrieved from a filtering table: Boursier, abstract, lines 8-11; [0033]; [0053]; [0034]; [0051]; [0052]).

However, Boursier does not explicitly disclose a service information table, in the client machine, containing filter parameters.

In analogous art, Kashima discloses a broadcast receiver comprising a filtering table including parameters of various data types, (Kashima, abstract, lines 5-9).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver with Boursier's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However, Boursier-Kashima does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Boursier-Kashima's system in order to increase conveniences for system's users (e.g. user's friendly interface), (see, Nader, column 1, lines 39-45).

Regarding claim 12:

Boursier discloses the invention substantially as claimed, including a method, comprising:

examining a message received from a client machine: (packet identifier/ channel identifier is recognized: Boursier, abstract, lines 8-9; [0032]; [0034]; [0051]; [0052]).

retrieving a filter parameter for the connection: (filtering parameters is retrieved from a filtering table to implement filtering process for identified channel: Boursier, abstract, lines 8-11; [0033]; [0053]).

implementing a filter, for a multicast program, according to the retrieved filter parameter: (implementing filtering process on broadcasting data (i.e. digital television data, digital radio data or broadcast computer data) by applying filtering parameters those retrieved from a filtering table: Boursier, abstract, lines 8-11; [0033]; [0053]; [0034]; [0051]; [0052]).

However, Boursier does not explicitly disclose a service information table, in the client machine, containing filter parameters.

In analogous art, Kashima discloses a broadcast receiver comprising a filtering table including parameters of various data types, (abstract, lines 5-9).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver with Boursier's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However, Boursier-Kashima does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Boursier- Kashima's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Regarding claim 4:

In addition to rejection in claim 1, Boursier-Kashima-Nader further discloses the connection from a client machine is used to determine the filter parameter to be retrieved: (Boursier, abstract, lines 8-11; [0033]; [0053]).

Regarding claim 5:

In addition to rejection in claim 1, Boursier-Kashima-Nader further discloses the filter parameter comprise program identifiers: (Boursier, abstract, lines 8-11; [0033]; [0053]).

Regarding claims 2 and 13:

In addition to rejection in claims 1 and 12, Boursier-Kashima-Nader further discloses a receiver is integrated with the client machine: (Kashima: abstract, lines 1-7; [0095]-[0097]).

Regarding claim 31:

In addition to rejection in claim 1, Boursier-Kashima-Nader further discloses a wireless handled terminal: (Kashima: abstract, lines 1-7; [0095]-[0097]).

Regarding claims 6 and 14:

In addition to rejection in claims 1 and 12, Boursier-Kashima-Nader further discloses receiver is a digital broadcast receiver: (Kashima: abstract, lines 1-7; [0095]-[0097]).

Regarding claim 15:

Boursier discloses the invention substantially as claimed, including a method, comprising:

examining a message received from a client machine: (in Boursier's system, identifier of incoming packet is recognized: abstract, lines 8-9; [0034]; [0051]; [0052]).

retrieving a filter parameter for a connection to the client machine: (filtering parameters is retrieved from a table: Boursier, abstract, lines 8-11; [0033]; [0053]).

However Boursier does not explicitly disclose a service information table in the client machine.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (Kashima, abstract, lines 1-7; [0095]-[0097]).

removing the filter according to the retrieved filter parameter: (the filtering table is scalable. Entries in the filtering table can be deleted or added. It would have been obvious in the

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art to understand that when a filter removed from a table also its corresponding filter parameters should be removed, (Kashima, abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering into Boursier's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

However, Boursier-Kashima does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Boursier-Kashima's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Claim 3 is rejected under 35 U.S.C 103(a) as being un-patentable over Boursier-Kashima-Nader in view of Duvall et al. (U.S. 5,884,033).

Regarding claim 3:

Boursier-Kashima-Nader discloses the invention substantially as disclosed in claim 1, but does not explicitly teach examining a user datagram protocol port.

In analogous art, Duvall teaches method matching ports and IP addresses: (column 1, lines 41-52).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Duvall's ideas of associating/interacting between a internal table and a filter database to determine whether an action needed into Boursier-Kashima-Nader's system in order to provide efficient messages filtering system, see (Duvall, column 1, lines 7-9).

Claim 16 is rejected under 35 U.S.C 103(a) as being un-patentable over Boursier-Kashima-Nader in view of Krumel et al. (U.S. 7,013,482).

Regarding claim 16:

Boursier-Kashima-Nader discloses the invention substantially as disclosed in claim 15, but does not explicitly teach IGMP message.

In analogous art, Krumel discloses method for filtering IGMP message, see (column 12, lines 35-60).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Krumel's ideas of filtering IGMP message into Boursier-Kashima-Nader's system in order provide an efficient broadcasting data filtering system.

Claim 35 is rejected under 35 U.S.C 103(a) as being un-patentable over Boursier et al. (U.S. 2004/0151185) in view of Nader et al. (U.S. 7,342,897).

Regarding claim 35:

Boursier discloses the invention substantially as claimed, including a terminal, comprising:

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a memory device for storing a program: (a memory for storing filtering parameters: Boursier, [0061]-[0063]).

a processor in communication with the memory device: (processor executes numbers of programs such as determining identifiers for entering data, retrieving parameters from the memory for filtering the entering data: Boursier, [0035]; [0061]-[0063]) the processor operative with the program to:

examining a connection: (in Boursier's system, identifier of incoming packet is recognized: abstract, lines 8-9; [0034]; [0051]; [0052]).

retrieve, from a service information table in the terminal, a filter parameter for the connection: (filtering parameters is retrieved from a table: Boursier, abstract, lines 8-11; [0033]; [0053]).

implement a filter, for a multicast program, according to the retrieved filter parameter: (the recognized packets are filtered using the filtering parameters: Boursier, abstract, lines 8-14; [0037]; [0053]).

However, Boursier does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into

Boursier's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Claims 7-8 and 10 are rejected under 35 U.S.C 103(a) as being un-patentable over Boursier et al. (U.S. 2004/0151185) and in view of Kashima (U.S. 2002/0087999) in view of Belville et al. (U.S. 5,828,833) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 7:

Boursier discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for a receiver to detect a need to implement a filter to a multicast program, the method comprising:

examining a filter: (comparing recognized packet/channel with filter parameters: Boursier, [0005]).

determining a connection the filter is associated with: (determining compatible filter parameters for the recognized packet/channel for further data filtering process: Boursier, [0037]).

examining a plurality of connections from a client machine: (recognizing packets identifiers for entering data: Boursier, [0023]; [0051]).

the filter parameter is fetched from a service information table: (filtering parameters is retrieved from a filter table: Boursier, abstract, lines 8-11; [0033]; [0053]).

However, Boursier does not explicitly disclose a filtering table in the client machine.

In analogous art, Kashima discloses a broadcast receiver comprising a filtering table including parameters of various data types, (abstract, lines 5-9).

removing the filter: (the filtering table is scalable, such as, entries in the filtering table can be deleted or added: Kashima, abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver into Boursier's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However Boursier-Kashima does not explicitly disclose if the connection from the client machine does not correspond to the connection the filter is associated with, remove the filter; the removal is according to the fetched filter parameter.

In comparable art, Belville discloses the filter is removed from the filter table in response to unregistered client or unregistered server is recognized. It would have been obvious in the art to understand that when a filter removed from a table also its corresponding filter parameters should be removed, (column 8, lines 42-6; figure 5).

However, Boursier-Kashima-Belville does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Boursier-Kashima-Belville's system in order to increase conveniences for system's users (user's friendly interface) (see, Nader, column 1, lines 39-45).

Regarding claim 10:

In addition to rejection in claim 7, Boursier-Kashima-Belville-Nader further discloses the connection from a client machine is used to determine the filter parameter to be retrieved: (Boursier, abstract, lines 8-11; [0033]; [0053]).

Regarding claim 8:

In addition to rejection in claim 7, Boursier-Kashima-Belville-Nader further discloses a receiver is integrated with the client machine: (Kashima: abstract, lines 1-7; [0095]-[0097]).

Claim 9 is rejected under 35 U.S.C 103(a) as being un-patentable over Boursier-Kashima-Belville-Nader in view of Duvall et al. (U.S. 5,884,033).

Regarding claim 9:

Boursier-Kashima-Belville-Nader discloses the invention substantially as disclosed in claim 7, but does not explicitly teach examining a user datagram protocol port.

In analogous art, Duvall teaches method matching ports and IP addresses: (column 1, lines 41-52).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Duvall's ideas of associating/interacting between a internal table and a filter database to determine whether an action needed into Boursier-Kashima-Belville-Nader's system in order to provide efficient messages filtering system, see (Duvall, column 1, lines 7-9).

Claims 21-23 and 33 are rejected under 35 U.S.C 103(a) as being un-patentable over Boursier et al. (U.S. 2004/0151185) in view of Kashima (U.S. 2002/0087999) in view of Wootton et al. (U.S. 6,128,298) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 21:

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Boursier discloses the invention substantially as claimed, including a method, comprising:

detecting a multicast data connection: (in Boursier's system, incoming packet is detected, and identifier of the coming packet is recognized: abstract, lines 8-9; [0034]; [0051]; [0052]).

associating the data connection with a filter parameter: (determining filter parameters for recognized packet identifier to implement packet filtering process: Boursier, [0037]).

fetching the filter parameter: (filtering parameters is retrieved from a table: Boursier, abstract, lines 8-11; [0033]; [0053]).

accepting data from the data connection; wherein said data is processed based on the filter parameter, and wherein a filter according to the fetched filter parameter is implement: (the recognized packets are filtered using the filtering parameters: Boursier, abstract, lines 8-14; [0037]; [0053]).

However Boursier does not explicitly disclose a service table in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver into Boursier's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However, Boursier-Kashima does not explicitly disclose creating a socket; binding the socket to a port number.

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In analogous art, Wootton also discloses a socket is defined based on associations with ports, see (Wootton, column 5, lines 40-67; column 6, lines 62-67).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Wootton's ideas of defining socket based on associations with system ports into Boursier-Kashima's system in order to save development time and resources by implying Wootton's ideas into Boursier-Kashima's system.

However, Boursier-Kashima-Wootton does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Boursier-Kashima-Wootton's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Regarding claim 22:

In addition to rejection in claim 21, Boursier-Kashima-Wootton-Nader further discloses digital broadcast receiver: (Kashima: abstract, lines 1-7).

Regarding claim 23:

In addition to rejection in claim 22, Boursier-Kashima-Wootton-Nader further discloses examining a table containing service information: (comparing data flow/recognized packet identifier with data filters: Boursier, [0005]).

Regarding claim 33:

In addition to rejection in claim 21, Boursier-Kashima-Wootton-Nader further discloses implementing in a wireless handheld terminal: (Kashima: abstract, lines 1-7).

Claims 18, 24 and 32 are rejected under 35 U.S.C 103(a) as being un-patentable over Haggerty et al. (U.S. 6,331,983) in view of Kashima (U.S. 2002/0087999) in view of Boursier et al. (U.S. 2004/0151185) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 18:

Haggerty discloses the invention substantially as claimed, including a method, comprising:

detecting an IGMP packet containing an instruction to join or leave a multicast group, said IGMP packet being associated with an entry in a table: (Haggerty discloses a switch receives an IGMP joint group message from a host: column 28, lines 45-64; figure 10).

removing a filter corresponding to the IGMP message having the instruction to leave a multicast group: (Haggerty discloses method for removing filter in response to upmap message/leave message: column 24, lines 11-16, 34-55; column 29, lines 39-67; column 30, lines 1-67; column 31, lines 1-29; column 33, lines 6-11).

adding a filter corresponding to the IGMP packet having the instruction to enter multicast group: (filter is updated in response to receiving a new join to multicast group: Haggerty, column 5, lines 12-16).

However, Haggerty does not explicitly disclose a service information table in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (Kashima, abstract, lines 1-7; [0095]-[0097]).

removing a filter based on a filter parameter associated with the entry in the table; wherein the parameter, upon which filter removal is based from the service information table: (the filtering table is scalable, such as, entries in the filtering table can be deleted or added, (Kashima, abstract, lines 1-7; [0095]-[0097])).

adding a filter based on a filter parameter associated with the entry in the table; wherein the filter parameter, upon which filter addition is based from the service information table: (the filtering table is scalable, such as, entries in the filtering table can be deleted or added: Kashima; abstract, lines 1-7; [0095]-[0097])).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver into Haggerty's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However, Haggerty-Kashima does the parameters is retrieved from the service table.

In analogous art, Boursier discloses filtering parameters are retrieved from a service table, see (abstract, lines 8-11; [0033]; [0053]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Boursier's ideas of implementing retrieved filter parameters for

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filtering broadcast data into Haggerty-Kashima's system in order to provide an efficient data broadcasting system (Boursier, [0007]).

However, Haggerty-Kashima-Boursier does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Haggerty-Kashima-Boursier's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Regarding claim 32:

In addition to rejection in claim 18, Haggerty-Kashima-Boursier-Nader further discloses implementing in a wireless handheld terminal: (Kashima: abstract, lines 1-7).

Regarding claim 24:

Haggerty discloses the invention substantially as claimed, including a method, comprising:

detecting a data connection being closed; leaving a multicast group; removing a filter based on the filter parameter: (Haggerty discloses method for removing filter in response to upmap message/ leave message: column 24, lines 11-16, 34-55; column 29, lines 39-67; column 30, lines 1-67; column 31, lines 1-29; column 33, lines 6-11).

However, Haggerty does not explicitly disclose associating the data connection with a filter parameter; fetching, from a service information table, the filter parameter.

In analogous art, Boursier discloses determining filter parameters for recognized packet identifier to implement packet filtering process ([0037]) and fetching the filter parameter: (filtering parameters is retrieved from a table (abstract, lines 8-11; [0033]; [0053])).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Boursier's ideas of implementing retrieved filter parameters for filtering broadcast data into Haggerty's system in order to provide an efficient data broadcasting system (Boursier, [0007]).

However, Haggerty-Boursier does not explicitly disclose an information table in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The filtering table is scalable, such as, entries in the filtering table can be deleted or added, (Kashima, abstract, lines 1-7; [0095]-[0097]).

removing a filter according to the fetched filter parameter: (the filtering table is scalable, such as, entries in the filtering table can be deleted or added, (Kashima, abstract, lines 1-7; [0095]-[0097])).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering into Haggerty-Boursier's system

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in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

However, Haggerty- Boursier-Kashima does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Haggerty- Boursier-Kashima's system in order to increase conveniences for system's users (see, Nader, column 1, lines 39-45).

Claims 25-26 are rejected under 35 U.S.C 103(a) as being un-patentable over Haggerty-Kashima-Boursier-Nader in view of Duvall et al. (U.S. 5,884,033).

Regarding claim 25:

Haggerty-Kashima-Boursier-Nader discloses the invention substantially as disclosed in claim 24, but does not explicitly teach polling a UDP Listener Table.

In analogous art, Duvall teaches method for associating/interacting between a internal table and a filter database; each filter entry stored in filter database is correlated with information of data streams transmission (e.i. ports, state of each active data stream) those are monitored and maintained in the internal table; the information included in the internal table are monitored to

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determine whether an action needed to be taken, see (title, column 3, lines 40-67; column 4, lines 1-67; column 5, lines 7-29; column 6, lines 42-67).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Duvall's ideas of associating/interacting between a internal table and a filter database to determine whether an action needed into Haggerty-Kashima-Boursier-Nader's system in order to provide efficient messages filtering system, see (Duvall, column 1, lines 7-9).

Regarding claim 26:

In addition to rejection in claim 25, Haggerty-Kashima-Boursier-Nader-Duvall further discloses identifying multicast data: (Haggerty: column 24, lines 11-16, 34-55; column 29, lines 39-67; column 30, lines 1-67; column 31, lines 1-29; column 33, lines 6-11).

Claim 29 is rejected under 35 U.S.C 103(a) as being un-patentable over Haggerty et al. (U.S. 6,331,983) in view of Boursier et al. (U.S. 2004/0151185) in view of Kashima (U.S. 2002/0087999) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 29:

Haggerty discloses the invention substantially as claimed, including an article of manufacture, comprising:

detecting an IGMP packet with instruction to join or leave a multicast group: (Haggerty discloses a switch receives an IGMP joint group message from a host: column 28, lines 45-64; figure 10).

removing a filter that corresponds to the IGMP packet having instruction to end a subscription: (Haggerty discloses method for removing filter in response to upmap message/

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leave message: column 24, lines 11-16, 34-55; column 29, lines 39-67; column 30, lines 1-67; column 31, lines 1-29; column 33, lines 6-11).

adding a filter that corresponds to the IGMP packet having the instruction to begin a subscription: (filter is updated in response to receiving a new join to multicast group: Haggerty, column 5, lines 12-16).

However, Haggerty does not explicitly disclose filter parameter retrieved from a table.

In analogous art, Boursier discloses filtering parameters is retrieved from a service table, see (abstract, lines 8-11; [0033]; [0053]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Boursier's ideas of implementing retrieved filter parameters for filtering broadcast data into Haggerty's system in order to provide an efficient data broadcasting system (Boursier, [0007]).

However, Haggerty-Boursier does not explicitly disclose removing a filter for a service information table entry, wherein the removal is according to a filter parameter retrieved from the service information table in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (Kashima, abstract, lines 1-7; [0095]-[0097]). The filtering table is scalable, such as, entries in the filtering table can be deleted or added, (Kashima, abstract, lines 1-7; [0095]-[0097]).

adding a filter for a service information table entry, wherein the addition is according to a filter parameter retrieved from the service information table in a receiving node: (as similar to

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rejection disclosed above, the filtering table is scalable, such as, entries in the filtering table can be deleted or added: Kashima; abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver into Haggerty-Boursier's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However, Haggerty-Boursier-Kashima does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled.

In analogous art, Nader discloses a table including filter parameters and filter enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Haggerty- Boursier- Kashima's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Claims 28 and 34 are rejected under 35 U.S.C 103(a) as being un-patentable over Duvall et al. (U.S. 5,884,033) in view of Kashima (U.S. 2002/0087999) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 28:

Duvall discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code, the method comprising:

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polling a UDP Listener Table; correlating a UDP entry with a service information table entry: (Duvall teaches method for associating/interacting between a internal table and a filter database; each filter entry stored in filter database is correlated with information of data streams transmission (e.i. ports, state of each active data stream) those are monitored and maintained in the internal table; the information included in the internal table are monitored to determine whether an action needed to be taken: title, column 3, lines 40-67; column 4, lines 1-67; column 5, lines 7-29; column 6, lines 42-67).

However, Duvall does not explicitly disclose the filter parameter is retrieved from a service information table in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (abstract, lines 1-7; [0095]-[0097]).

removing a data filter according to a filter parameter of the identified service table entry: (the filtering table is scalable, such as, entries in the filtering table can be deleted or added: Kashima, abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver into Duvall's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However, Duvall-Kashima does not explicitly disclose identifying a service table having an active status as the filter status; including filter status information indicating whether a filter is currently enable; and changing the filter status.

In analogous art, Nader discloses a table including filter parameters and filter changeable enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Duvall-Kashima's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Regarding claim 34:

In addition to rejection in claim 28, Duvall-Kashima-Nader further discloses a wireless handled terminal: (Kashima: abstract, lines 1-7; [0095]-[0097]).

Claim 27 is rejected under 35 U.S.C 103(a) as being un-patentable over Krumel et al. (U.S. 7,013,482) in view of Nader et al. (U.S. 7,342,897).

Regarding claim 27:

Krumel discloses the invention substantially as claimed, including a method, comprising:
detecting a IGMP message: (in Krumel's system, IGMP message is detected: column 12, lines 35-60).

retrieving a filter parameter from an service information table in a receiving node;
implementing a filter according to the retrieved filter parameter: (Krumel discloses a rule-base filters created in a data protection device. The data protection device receives data packets from internet service provider, analyzes the received data packets and implements data packet filtering by using the rule-base filters: figure 1; column 4, lines 45-67; column 7, lines 1-52).

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However, Krumel does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled; changing a filter status in a table.

In analogous art, Nader discloses a table including filter parameters and filter changeable enabling check box which used to indicate current status of a filter, see (Nader, figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Krumel's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

Claim 19 is rejected under 35 U.S.C 103(a) as being un-patentable over Duvall et al. (U.S. 5,884,033) in view of Kashima (U.S. 2002/0087999) in view of Boursier et al. (U.S. 2004/0151185) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 19:

Duvall discloses the invention substantially as claimed, including a method, comprising: comparing each entry in a UDP listen Table to each entry in a service information table; the first type of entry is present in the UDP table and not present in the service table; the second type of entry is present in the UDP table and not present in the service table: (Duvall teaches method for associating/interacting between a internal table and a filter database; each filter entry stored in filter database is correlated with information of data streams transmission (e.i. ports, state of each active data stream) those are monitored and maintained in the internal table; the information included in the internal table are monitored to determine whether an action needed to

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be taken: title, column 3, lines 40-67; column 4, lines 1-67; column 5, lines 7-29; column 6, lines 42-67).

However, Duvall does not explicitly disclose the filter a service information table in a receiving node.

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed, see (Kashima, abstract, lines 1-7; [0095]-[0097]).

removing a filter according to the retrieved filter parameter of a type of entry: (the filtering table is scalable, such as, entries in the filtering table can be deleted or added: Kashima, abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashima's ideas of including a filtering table into a broadcast receiver into Duvall's system in order to increase benefits for broadcasting system consumers (e.g. ability of ignoring unqualified signals) , see (Kashima: abstract, lines 1-5).

However Duvall-Kashima does not explicitly disclose retrieving a filter parameter of a first type of entry; implementing a filter according to the retrieved filter parameter of the first type of entry as a first filter.

In analogous art, Boursier discloses filtering parameters is retrieved from a table. The recognized packets are filtered using the filtering parameters; see (Boursier, abstract, lines 8-14; [0037]; [0053]; [0033]; [0053]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Boursier's ideas of implementing retrieved filter parameters for

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filtering broadcast data into Duvall-Kashima's system in order to provide an efficient data broadcasting system (Boursier, [0007]).

However, Duvall-Kashima-Boursier does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled; changing a filter status in a table.

In analogous art, Nader discloses a table including filter parameters and filter changeable enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Duvall-Kashima-Boursier's system in order to increase conveniences for system's users (user's friendly interface) (see, Nader, column 1, lines 39-45).

Claim 20 is rejected under 35 U.S.C 103(a) as being un-patentable over Duvall-Kashima- Boursier-Nader in view of Krumel et al. (U.S. 7,013,482).

Regarding claim 20:

Duvall-Kashima-Boursier-Nader discloses the invention substantially as disclosed in claim 19, but does not explicitly teach UDP entry is identified by IP address.

In analogous art, Krumel discloses the transmitting packet is determined if allowed to pass as valid packet or denied as an invalid packet regarding matching between IP addresses and enter ports: column 7, lines 5-15; column 9, lines 35-48).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Krumel's ideas of matching between IP addresses of transmitting packets with enter ports to determine if the transmitting packet is valid or invalid to be passed into a network into Duvall-Kashima-Boursier-Nader's system in order to providing efficient network firewall system, see (Krumel: column 1, lines 10-12; column 2, lines 4-24).

Claim 30 is rejected under 35 U.S.C 103(a) as being un-patentable over Krumel et al. (U.S. 7,013,482) in view of Kashima (U.S. 2002/0087999) and further in view of Nader et al. (U.S. 7,342,897).

Regarding claim 30:

Krumel discloses the invention substantially as claimed, including an artificial of manufacture, comprising:

finding a service information table entry that corresponds to a UDP entry having a local IP address associated with a port number of a multicast connection: (Krumel discloses state rules filters contains associations between IP addresses and ports. The transmitting packet is determined if allowed to pass as valid packet or denied as an invalid packet regarding matching between IP addresses and enter ports: column 7, lines 5-15; column 9, lines 35-48).

activating a filter that is in both tables and for which the filter is not applied: (Krumel discloses the packet filtering processes can be set as enable state or disable state: column 12, lines 10-20).

retrieving a filter parameter from a service information table: (in Krumel's system, filters are checked to determine if transmitting packet is valid to pass or invalid to pass: abstract; column 11, lines 30-55; column 7, lines 45-65).

However, Krumel does not explicitly disclose creating service information table in a receiving node, removing a filter that contains a filter parameter corresponding to a service information table entry with which there is no UDP entry associated;

In analogous art, Kashima discloses broadcast receiver includes a filtering table which lists identifying parameters representing the various data types which are to be stored and processed. The filtering table is scalable, such as, entries in the filtering table can be deleted or added, see (abstract, lines 1-7; [0095]-[0097]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Kashima's ideas of using a filtering table included in the broadcast receiver for implementing broadcasting data filtering into Krumel's system in order to provide a flexible and efficient data broadcasting system (e.g. using scalable filtering table to limit hardware upgrading), see (Kashima, [0031]).

However, Krumel-Kashima does not explicitly disclose including filter status information into a filter table to indicate whether a filter is currently enabled; changing a filter status in a table.

In analogous art, Nader discloses a table including filter parameters and filter changeable enabling check box which used to indicate current status of a filter, see (figure 4, items 100, 110, 111, 112, 113, 114).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Nader's ideas of creating a table/template including selectable filter parameters and filter enabling check box for setting-up packet filter parameters into Duvall-

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Krumel-Kashima's system in order to increase conveniences for system's users (e.g. user's friendly interface) (see, Nader, column 1, lines 39-45).

The prior art made of record and not relied upon are considered pertinent to applicant's disclosure. The following publication is cited to further show the state of the art with respect to "Event or polling drive DVB-T filter detection": U.S. (20020165934).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusions

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAN-DAI Thi TRUONG whose telephone number is (571)272-7959. The examiner can normally be reached on Monday- Friday from 8:30am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/23/2008.

/Kenny S Lin/
Primary Examiner, Art Unit 2452